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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,824	01/05/2004	Yoshiteru Tanaka	2003_1907A	4059

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EXAMINER

HUYNH, KIM T

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/750,824	Applicant(s) TANAKA ET AL.	
	Examiner Kim T. Huynh	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/16/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Itkowsky et al. (US Patent 5,875,309)

As per claims 1 and 9, Itkowsky discloses a bus arbiter operable to arbitrate data transfer requests among plural modules (fig.2, 14 ie the media modules) connected to a bus(fig.2, 5 ie bus),(col.4, lines 58-67) the bus arbiter comprising:

a slot allotment period storing unit (fig.7, 100 table) operable to store information of a slot allotment period including plural slots;(col.3, lines 10-28)

a reserved-slot-number storing unit operable to store information of a reserved slot number, the reserved slot number being a slot number previously allotted to a predetermined module of the plural modules; (col.3, lines 10-54)

a remaining-reserved-slot-number storing unit operable to store information of a remaining reserved slot number, the remaining reserved slot number being a difference between a total slot number constituting the slot allotment period and the reserved slot number; (col.7, lines 4-44 ie table constructed to add or deleted slots)

a remaining-slot-number calculating unit operable to calculate a remaining slot number of the reserved slot number each time when a data transfer request is permitted for the predetermined module to which the reserved slot number is allotted, and operable to calculate a remaining slot number of the remaining reserved slot number each time when a data transfer request is permitted for the module that uses the remaining reserved slot number; (col.4, lines 58-67), (col.7, lines 4-44)

a first renewed-slot-number storing unit operable to store, as an initial value, information of the reserved slot number stored in said reserved-slot-number storing unit, and operable to store information of the remaining slot number of the reserved slot number, the remaining slot number being calculated by said remaining-slot-number calculating unit; (col.3, lines 10-54), (col.7, lines 4-44 ie for low priority add or delete consecutive entries for high priority by adding or deleting entries in the arbitration sequence)

a second renewed-slot-number storing unit operable to store, as an initial value, information of the remaining reserved slot number stored in said remaining-reserved-slot-number storing unit, and operable to store information of the remaining slot number of the remaining reserved slot number, the remaining slot number being calculated by said remaining-slot-number calculating unit; (col.3, lines 10-54), (col.7, lines 4-44 ie for low priority add or delete consecutive entries for high priority by adding or deleting entries in the arbitration sequence)

a plurality of renewed-slot-number-designating storing units operable to store information designating said first renewed-slot-number storing unit or said second renewed-slot-number storing unit, each thereof being installed corresponding to the plural modules and allotted to the corresponding module; (col.3, lines 10-54), (col.7, lines 4-44 ie for low priority add or delete consecutive entries for high priority by adding or deleting entries in the arbitration sequence)

a transfer-permissible-candidate determining unit operable, in response to a request of data transfer from the module, to generate a transfer-permissible-candidate notifying signal indicating that the module is a candidate for which a data transfer request is permitted (col.5, lines 27-38) only when, referring to either said first renewed-slot-number storing unit or said second renewed-slot-number storing unit designated by the information stored in said renewed-slot-number-designating storing unit that corresponds to the module, a remaining slot number still remains, the remaining slot number being stored in either said first renewed-slot-number storing unit or said second renewed-slot-number storing unit that is referred; and (col.7, lines 4-44)

a transfer permission determining unit operable, according to a predetermined rule, to determine permission for the data transfer request from the module designated by the transfer-permissible-candidate notifying signal; (col.5, lines 27-38)

wherein information indicating said first renewed-slot-number storing unit is stored in said renewed-slot-number-designating storing unit corresponding to

the predetermined module to which the reserved slot number is allotted, wherein information indicating said second renewed-slot-number storing unit is stored in said renewed-slot-number-designating storing unit corresponding to the predetermined module that uses the remaining reserved slot number; (col.5, lines 27-38), (col.7, lines 4-44)

wherein information of the reserved slot number stored in said reserved-slot-number storing unit is stored, as an initial value, into said first renewed-slot-number storing unit each time when the slot allotment period elapses; and (col.7, lines 4-44)

wherein information of the remaining reserved slot number stored in said remaining-reserved-slot-number storing unit is stored, as an initial value, into said second renewed-slot-number storing unit each time when the slot allotment period elapses. (col.7, lines 4-44)

As per claims 2 and 10, Itkowsky discloses wherein plural pieces of the predetermined module are connected to the bus;

plural pieces of said reserved-slot-number storing unit are provided corresponding to the plural pieces of the predetermined module; and (col.3, lines 10-54)

plural pieces of said first renewed-slot-number storing unit are provided corresponding to the plural pieces of said reserved-slot-number storing unit. (col.3, lines 10-54)

As per claims 3 and 11, Itkowsky discloses wherein, when the remaining slot number of the reserved slot number is exhausted, said remaining-slot-number calculating unit notifies a manager-assigned module of the plural modules that the predetermined module, to which the reserved slot number is allotted, has spent all the reserved slot number. (col.7, lines 4-44)

As per claims 4 and 12, Itkowsky discloses a bus arbiter operable to arbitrate data transfer requests among plural modules (fig.2, 14 ie the media modules) connected to a bus(fig.2, 5 ie bus), (col.4, lines 58-67) the bus arbiter comprising a remaining-reserved-slot-number storing unit (fig.7, 100 ie table) operable to store information of a remaining reserved slot number,(col.3, lines 10-28) the remaining reserved slot number being a difference between a slot number of a slot allotment period including plural slots and a reserved slot number, the reserved slot number being a slot number previously allotted to a predetermined module of the plural modules. (col.4, lines 58-67)

As per claims 5 and 13, Itkowsky discloses a bus arbiter further comprising a slot allotment period storing unit operable to store information of the slot allotment period. (col.4, lines 58-67)

As per claims 6 and 14, Itkowsky discloses a bus arbiter further comprising a

reserved-slot-number storing unit operable to store information of the reserved slot number. (col.3,lines 10-28)

As per claims 7 and 15, Itkowsky discloses wherein, when the predetermined module has spent all the reserved slot number, a manager-assigned module of the plural modules is notified that all the reserved slot number is spent. (col.4, lines 58-67)

As per claims 8 and 16, Itkowsky discloses wherein plural pieces of the predetermined module are provided, and said remaining-reserved-slot-number storing unit stores information of a remaining reserved slot number, the remaining reserved slot number being a difference between the slot number constituting the slot allotment period and a sum of plural pieces of the reserved slot number.(col.4, lines 58-67),

Conclusion

3. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9.00AM- 6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached at (571)272-3676 or via e-mail addressed to [rehana.perveen@uspto.gov].*

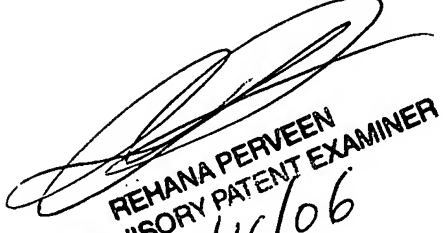
The fax phone numbers for the organization where this application or proceeding is assigned are (571)273-8300 for regular communications and After Final communications. Any inquiry of a general

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nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

Kim Huynh

March 13, 2006


REHANA PERVEEN
SUPERVISORY PATENT EXAMINER
3/16/06